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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,948	09/10/2003	Mackenzie E. King	ATMI-579	3524
25559	7590	12/28/2005	EXAMINER	
ATMI, INC. 7 COMMERCE DRIVE DANBURY, CT 06810			SIEFKE, SAMUEL P	
			ART UNIT	PAPER NUMBER
			1743	
DATE MAILED: 12/28/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/658,948	KING ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Samuel P. Siefke	1743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-19 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. A purging fluid source is not described in the specification. The only mention of a purging source is on paragraph 30 and specifically states that the purging source is a gas.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eckles et al. (USPN 4,326,940).

Eckles teaches an on-stream apparatus for analyzing the concentrations of chemical components in an electroplating bath. The apparatus comprises a column 10, UV radiation detector 11 and an electro chemical detector, all of which are analysis chambers (col. 4, lines 3-10). Eckles teaches an electroplating bath 43, from which a sample flows through a four-way valve (six way but configured for four way) to a sample loop 51. The sampling duct of Eckles is any tubing that the sample flows through. A multiport valve (actuatable) is in fluid communication with the sampling duct (col. 5, lines 1-60) has multiple delivery paths, sample from bath to analyzer, sample from bath back to bath etc (col. 7, lines 1-26). A solvent delivery system 2, which is connected to the multiport valve, provides carrier fluid for sample transport. Eckles teaches that samples are volumetrically applied to the HPLC column 10 (col. 7, lines 7, lines 24-26). Further Eckles provides a microprocessor controller 4 that controls sample flow throughout the system (col. 7, lines 36-66) that include controlling the 4 way valve and the multiport for injection of sample, directing the sample to a waste line, purging the sample lines by a

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purge gas, and further directing the purge gas to a waste line. A purging gas source 92 of nitrogen is provided in communication with the four-way valve 20 (col. 8, lines 8-12), also inert gas 100 (nitrogen) is connected to the electrochemical detector 12 for purging or reference signal generation (col. 10, lines 8-11). A waste line in fluid communication with the four-way valve is provided (col. 5, lines 38-41; col. 7, lines 10-15). Waste drain 98 empties into waste container 99. A source of inert gas 100, such as nitrogen, may be connected to the electrochemical detector 12 for normal purposes, such as purging reference signal generation, etc (col. 10, lines 8-11).

Eckles does not specifically teach a flow sensor or two sample loops.

Eckles teaches that samples are volumetrically applied to the HPLC column 10 (col. 7, lines 7, lines 24-26). It would have been obvious to one having ordinary skill in the art to employ a flow sensor in order to provide precise volumes of sample to analysis chamber to aid in concentrations calculations.

Regarding two sample loops, Eckles teaches one sample loop being continuously filled with representative samples from the process tank electroplating bath 43. It would have been obvious to one having an ordinary skill in the art at the time of the invention to modify Eckles to employ two sample loops for uptake of samples from the electroplating bath so that two samples representing the current electroplating bath solution be on hand for analysis, see *In re Harza*, 124 U.S.P.Q. 378. The court held that mere duplication of parts has no patentable significance unless a new and unexpected result is produced.

### ***Response to Arguments***

Applicant's arguments filed 10/10/05 have been fully considered but they are not persuasive. Applicant questions the extremely shortened time period to response to the Non-Final Office Action dated 9/8/05. On the Office Action Summary page (PTOL-326) "A shortened statutory period for reply is set to expire 6 months or thirty days, which ever is longer, from the mailing of this communication." The Examiner made a typo and the set period should have been 3 months, but nowhere does the period for reply to a Non-final rejection expire 30 days from the mailing date.

Applicant argues, "applicant's system, shown in fig. 1, provides a system having two separate analysis chambers and flows systems for simultaneous analysis of two samples withdrawn from the electroplating process tool at the same time." In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., two analysis chambers) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Claim 1 only recites at least one analysis chamber and two sample loops. Therefore claim 1 in its broadest limitation, one sample analysis chamber, can only analyze one sample at a time.

Applicant argues, "Clearly, the reference is completely devoid of any teaching or suggestion of introducing a purging fluid into valve 20 or 50 for flushing or purging the system." See written description requirement rejection above. Further Eckles teaches a

source of inert gas 100, such as nitrogen, may be connected to the electrochemical detector 12 for normal purposes, such as purging reference signal generation, etc (col. 10, lines 8-11).

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samuel P. Siefke whose telephone number is 571-272-1262. The examiner can normally be reached on M-F 7:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill A. Warden can be reached on 571-272-1700. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sam P. Siefke



December 21, 2005



**Jill Warden**  
**Supervisory Patent Examiner**  
**Technology Center 1700**